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Attorneys for Defendant
SEAGATE TECHNOLOGY LLC

UNITED STATES DISTRICT COURT

NORTHERN DISTRICT OF CALIFORNIA, SAN JOSE DIVISION

IN RE SEAGATE TECHNOLOGY LLC LITIGATION CONSOLIDATED ACTION	Case No. 5:16-cv-00523-RMW CLASS ACTION **REQUEST FOR JUDICIAL NOTICE IN SUPPORT OF SEAGATE'S MOTION TO DISMISS SECOND CONSOLIDATED AMENDED COMPLAINT; DECLARATION OF ANNA S. MCLEAN IN SUPPORT** Date: October 7, 2016 Time: 9:00 a.m. Place: Ctrm. 6, San Jose Courthouse Judge: Hon. Ronald M. Whyte Second Consolidated Amended Complaint filed: July 11, 2016

REQUEST FOR JUDICIAL NOTICE

Pursuant to Federal Rule of Evidence 201, Defendant Seagate Technology LLC ("Seagate") hereby requests that the Court take judicial notice of the following item in connection with Seagate's Motion to Dismiss:

1. "CSI: Backblaze – Dissecting 3TB Drive Failure," referenced in the SAC at ¶ 85, n.5, attached hereto as **Exhibit A** to the Declaration of Anna S. McLean ("McLean Declaration"), submitted herewith.

A court may take judicial notice of facts outside the pleadings on a motion to dismiss. *Mack v. South Bay Beer Distribs.*, 798 F.2d 1279, 1282 (9th Cir. 1986) (abrogated on other grounds). The Court should take judicial notice of Exhibit A because it is a document referenced in the Complaint. *Knievel v. ESPN*, 393 F.3d 1068, 1076 (9th Cir. 2005) (under the "incorporation by reference" doctrine, courts may take judicial notice of documents "whose contents are alleged in a complaint and whose authenticity no party questions, but which are not physically attached to the [plaintiff's] pleading" (*citing In re Silicon Graphics Inc. Sec. Litig.*, 183 F.3d 970, 986 (9th Cir. 2002).) Accordingly, the Court should take judicial notice of the document attached hereto as Exhibit A to the McLean Declaration, submitted herewith.

Dated: August 5, 2016

SHEPPARD, MULLIN, RICHTER & HAMPTON LLP

By */s/ Anna S. McLean*

ANNA S. McLEAN

Attorneys for Defendant
SEAGATE TECHNOLOGY LLC

DECLARATION OF ANNA S. McLEAN

I, Anna S. McLean, hereby declare:

1. I am an attorney with Sheppard, Mullin, Richter & Hampton LLP, counsel for Defendant Seagate Technology LLC ("Seagate") in this matter. I make this declaration in support of Seagate's Motion to Dismiss the Second Consolidated Amended Complaint. Unless stated otherwise, I have record and/or personal knowledge of the matters stated herein and, if called to testify, could and would competently testify to their truth.

2. Attached as **Exhibit A** is a true and correct copy of a blog post titled "CSI: Backblaze – Dissecting 3TB," including related comments, I caused to be downloaded and printed from the website https://www.backblaze.com/blog/3tb-hard-drive-failure/, on July 28, 2016.

I declare under the penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed on August 5, 2016, in San Francisco, California.

/s/ Anna S. McLean
ANNA S. McLEAN

EXHIBIT A

CSI: Backblaze – Dissecting 3TB Drive Failure

April 15th, 2015

Beginning in January 2012, Backblaze deployed 4,829 Seagate 3TB hard drives, model ST3000DM001, into Backblaze Storage Pods. In our experience, 80% of the hard drives we deploy will function at least 4 years. As of March 31, 2015, just 10% of the Seagate 3TB drives deployed in 2012 are still in service. This is the story of the 4,345 Seagate 3TB drives that are no longer in service.

November 2011 – The Thailand Drive Crisis

In November 2011 Backblaze, like everyone else who used hard drives, was reeling from the effects of the Thailand Drive Crisis. Prices had jumped 200-300% for hard drives and supplies were tight. The 3TB drives we normally used from HGST (formerly Hitachi) were difficult to find, but we still needed to buy 500-600 drives a month to run our online backup business. The 3TB drives we were able to find in decent quantity were from Seagate and we bought as many as we could. We purchased internal drives and also external USB drives, from which we removed the enclosed hard drive. The model number of the drive, ST3000DM001, was the same for both the internal and external drives.

Here is a chart of our Seagate drive purchases from November 2011 through December 2012.

Seagate 3TB Hard Drive Purchases

Model: ST3000DM001

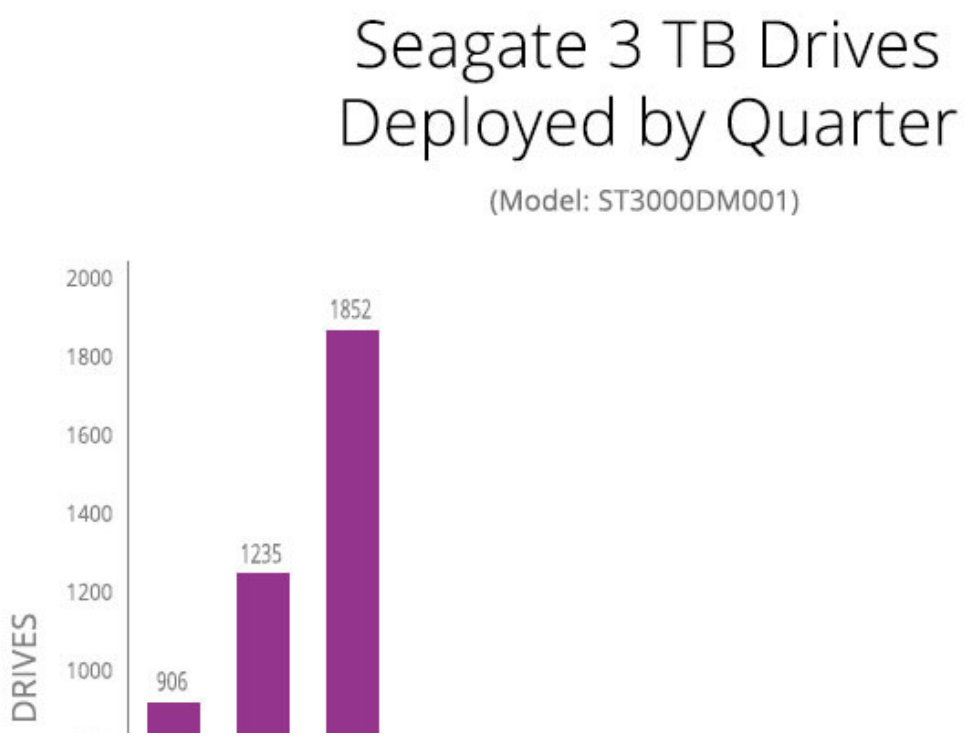
Month	Internal Drives	External Drives	Total
Nov-11		194	194
Dec-11		8	8
Jan-12	225	114	339
Feb-12	720	74	794
Mar-12	800		800
Apr-12	270		270
May-12			0

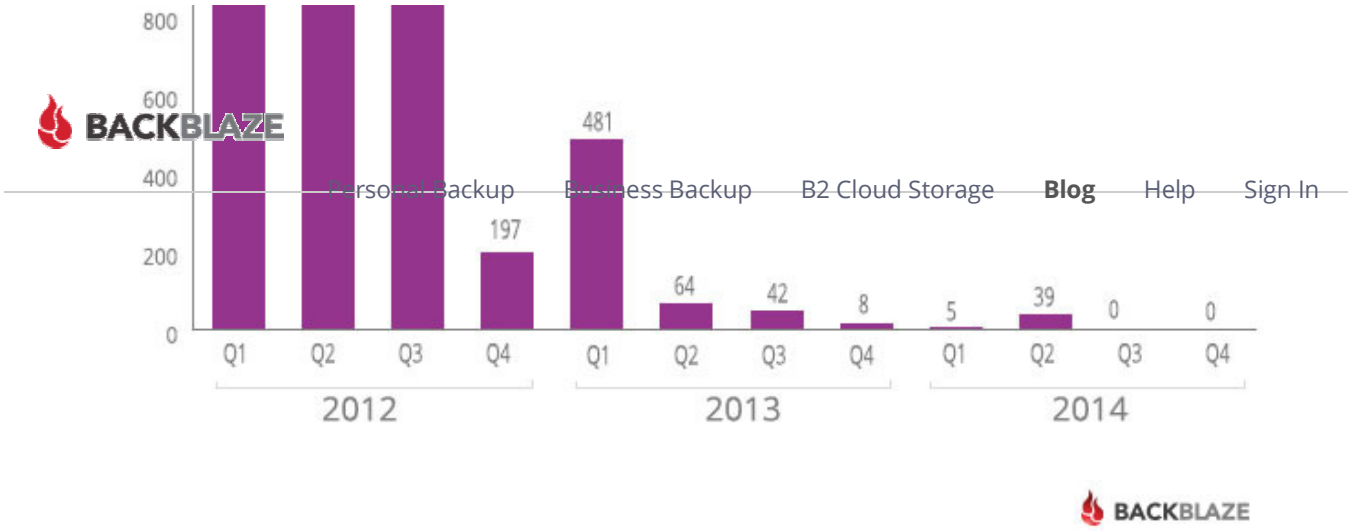
Jun-12	365		365
Jul-12	250	563	813
Aug-12		413	413
Sep-12		505	505
Oct-12			0
Nov-12		347	347
Dec-12		127	127
Totals	**2,630**	**2,345**	**4,975**

Our New Reality in the Face of the Thailand Drive Crisis

Looking back on 2012, it is safe to say that if we did not purchase the Seagate 3TB drives, our business would have been dramatically affected. We estimated that our costs would have been at least $1.14 Million more, making our goal of keeping our price at $5.00/month for unlimited storage difficult at best. In other words, the ability to purchase, at a reasonable price, the nearly 5,000 Seagate 3TB drives that we needed during 2012 was instrumental in meeting our business objectives.

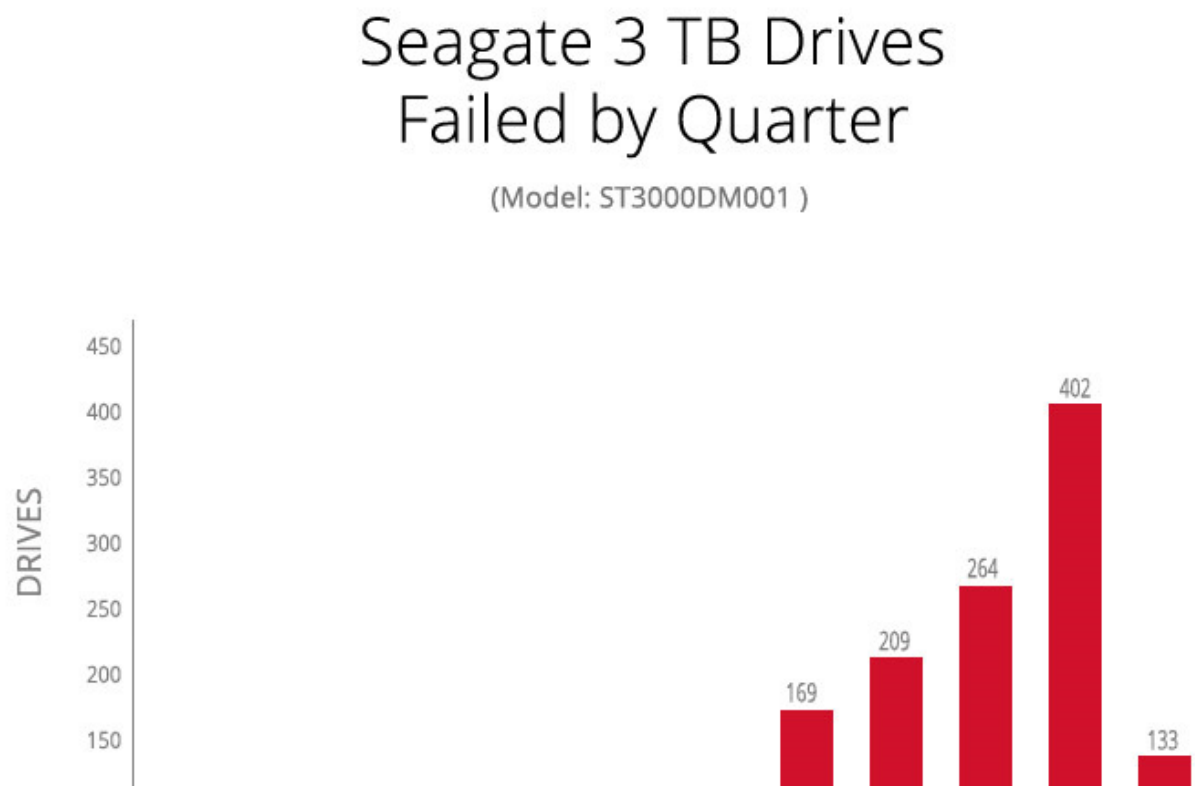
Beginning in January 2012, we deployed 4,829 Seagate 3.0 TB drives as shown below.

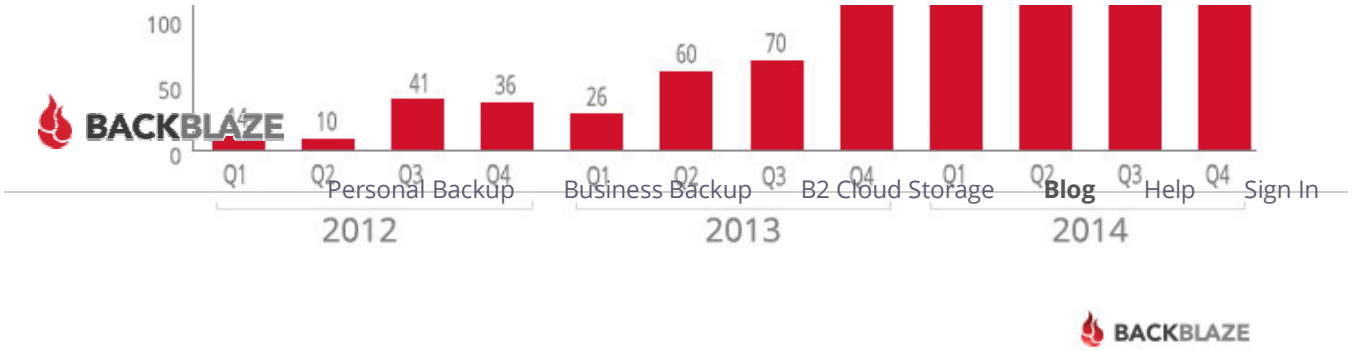




The Slide to Failure

We would expect the Seagate 3TB drives to follow the bathtub-shaped failure rate curve described in our study on hard drive life expectancy. Instead the Seagate drives failure model was quite different.





In annual terms, 2.7% or the drives failed in 2012, 5.4% failed in 2013 and 47.2% failed in 2014.

As of March 31, 2015, 1,423 of the 4,829 deployed Seagate 3TB drives had failed, that's 29.5% of the drives.

Drive Failure Replacement and Testing

Let's take a minute to describe what happens when a drive in a Storage Pod fails. When a drive fails, no data is compromised since we distribute data redundantly across multiple drives. Simply, the bad drive is replaced and the system is tested and rebuilt. During the entire process, the data is safe and available for file recovery as needed.

If during the rebuilding process, a second drives fails, the data is migrated to another Storage Pod where it is safe and available, and the Storage Pod with the second failed drive is taken off-line. Once off-line, technicians go through a series of steps to assess the health of the system.

One of the health assessment steps can be to remove all the drives from the Storage Pod for testing. There are two different tests. The first test is similar to "advanced" reformatting and takes about 20 minutes. The second basically writes and reads all the

sectors on the drive and takes several hours. Only if a drives passes both tests can it be reformatted and reused.

The first sign of trouble was in May of 2013, when 27 drives failed. This was about 0.5% of the Seagate drives deployed at the time, a small number, but worth paying attention to. In June there were 25 failures and in July there were 29, but it was in July 2013 that the failing drives issue came to the forefront.

During July and August 2013, three Storage Pods, all with Seagate drives, had drive failures. In all three cases, each time a drive was replaced and the rebuilding process restarted, additional drive failures would occur. At this point all of the hard drives in each of the three Storage Pods were removed and scheduled for further testing. The Storage Pods themselves had new drives installed and went back into service.

The drives from the 3 Pods were removed and tested as noted above and about half of the drives from the three Storage Pods failed the first test. The remaining “good” drives were subjected to the second test and about 50% failed that test. The results were eye opening. It was decided that all of the drives from the 3 Storage Pods would be removed from service and not redeployed.

Over the next several months, Seagate hard drives failed in noticeable quantities: 31 in October 2013, 68 in November, 70 in December and the upward trend continued in 2014. The only saving grace was that in nearly all cases, once a failed drive was replaced, the system would rebuild without incident. Any time a drive gave the least sign of trouble, it was removed and tested. Failing either of the external tests meant the drive was removed from service and placed with the “suspect” drives. The “suspect” pile was getting larger by the day.

Hitting the Wall

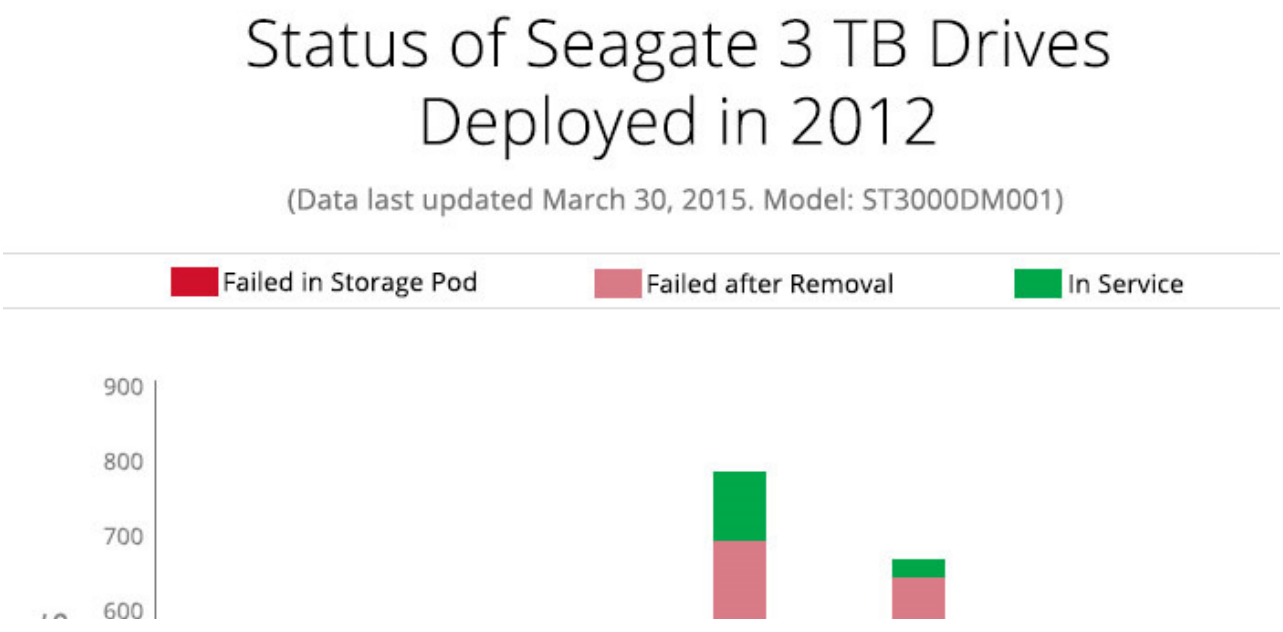
The failure count continued to rise and in the Spring of 2014 we had decided that if a Storage Pod with Seagate 3TB drives showed any type of drive failure we would 1) immediately migrate all the data and then 2) remove and test all the drives in the Storage Pod.

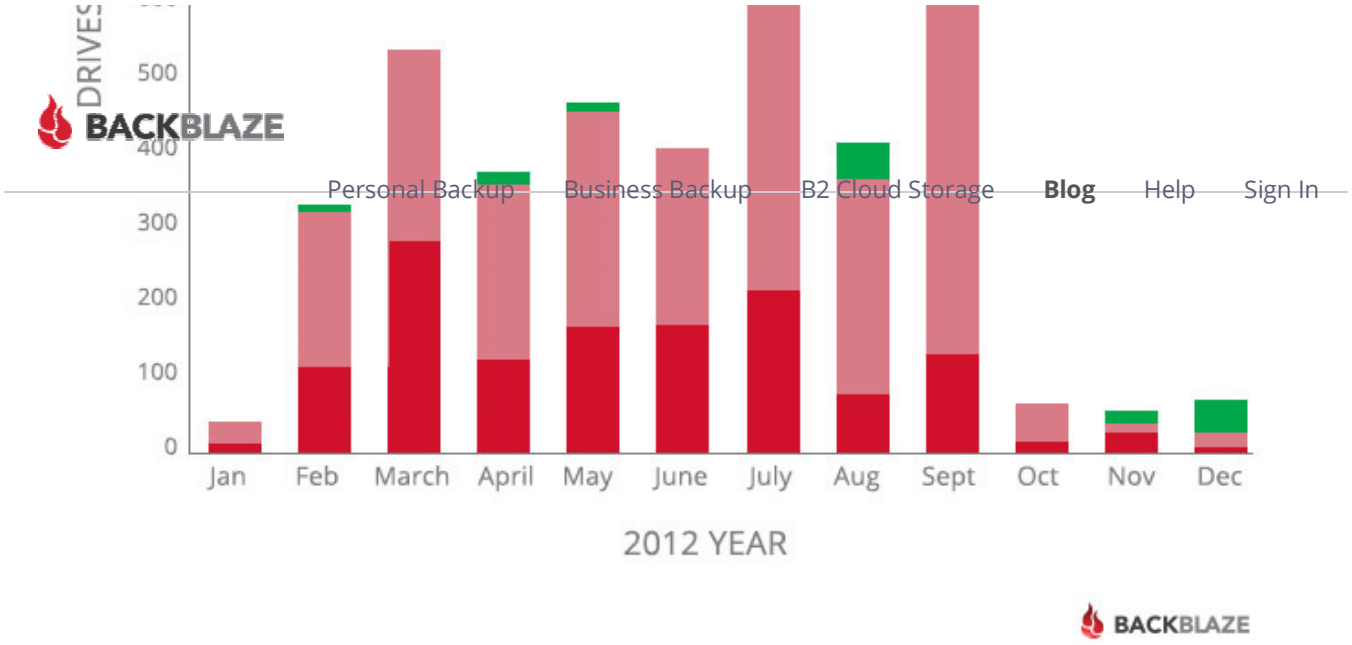
In July alone, 189 hard drives failed and another 273 were removed from service. The total, 462, was 11.4% of the Seagate 3TB drives operational on July 1st, 2014.

To be clear, a drive is marked "Failed" because it failed in operation or during a rebuilding process. Drives marked "Removed" are those that were removed from a Storage Pod that contained failed drives. When the "Removed" drives were tested nearly 75% of them failed one of the two tests done after removal. It could be argued that 25% of the "Removed" drives were still good, even though they were assigned to the removed category, but these drives were never reinstalled.

Digging In

The Seagate 3TB drives purchased from November 2011 through December 2012 were failing at very high rates throughout 2014. If we look at the Seagate 3TB drives deployed during 2012 here is their status as of March 31, 2015.





Only 251 of the 4,190 Seagate 3TB hard drives deployed in 2012 are still in service as of March 31, 2015. Breaking it down:

Status of Seagate 3TB Drives Deployed in 2012

Model: ST3000DM001

Status	# of Drives	% of total
Still in operation	251	6%
Failed in place	1,342	32%
Removed	2,597	62%

As a reminder, about 75% of the "Removed" drives failed one of the bench tests once they were removed from a Storage Pod.

Thoughts and Theories

Theory – The Backblaze System

The first thing to consider is whether this was a systemic issue on our part. Let's start with comparing the Seagate drives to other 3TB drives deployed in 2012.

Status as of March 31, 2015 of 3TB Drives Deployed in 2012

Status as of March 31, 2015 of 3TB Drives Deployed in 2012

Drive	Deployed	In-Service	Failed	% Failed
Seagate 3TB (ST3000DM001)	4,190	251	1,342	32.0%
HGST 3TB (HDS5C3030ALA630)	2,511	2,408	103	4.1%
Seagate 3TB (ST33000651AS)	181	155	15	8.3%
Western Digital 3TB (WD30EFRX)	45	43	2	4.5%

Given that the drives were deployed into the same environment, the Seagate 3TB drives didn't fare as well.

Theory – Storage Pod 2.0

A second thing to consider is the model of the Storage Pod. In 2012, the only Storage Pods that were deployed were Version 2.0, Version 3.0 was not used until February 2013. So all of the 3TB drives deployed in 2012 were installed in a Storage Pod 2.0 system. In the case of Seagate, the 3TB drives installed in 2012 performed reasonably well during the first and second years of operation; 2.7% of the drives in service failed in 2012 and a total of 7.7% of the drives deployed in 2012 had failed through the end of 2013. It was in 2014 that the drives seemed to "hit the wall."

Conversely, as noted above we also deployed 2,511 HGST drives, all into Version 2.0 Storage Pods. To date they have not shown any signs of "hitting the wall," with just 4.1% of the drives failing as of the March 31, 2015.

Theory – Shucking External Drives

A third thing to consider was the use of "External" drives. Did the "shucking" of external drives inflate the number of drive failures? Consider the following chart.

Seagate Drive Failures by Type for Drives Deployed in 2012
As of March 31, 2015

From	To	Deployed	External	Internal	Drives Failed	
					Count	%
Jan-12	Jun-12	2,141	390	1,751	867	40.50%

Jul-12	Dec-12	2,049	1,481	568	475	23.20%

From January to June most of the drives deployed were internal, but the percentage of drives that failed is higher during that period versus the July through December period where a majority of the drives deployed were external. In practice, the percentage of drives that failed is too high during either period regardless of whether or not the drive was shucked.

Adding to this is the fact that 300 of the Hitachi 3TB drives deployed in 2012 were external drives. These drives showed no evidence of failing at a higher rate than their internal counterparts.

Theory – The Drive Itself

This brings us to the final thing to consider, the drives themselves. The drives in question were produced beginning in Q3 of 2011. It was during this period that the Thailand Drive Crisis began. As a reminder up to 50% of the world's hard drive production was affected by the flooding in Thailand beginning in August 2011. The upheaval that occurred to the hard drive industry was well documented. The drive manufacturers generally did not discuss how specific drive models were impacted by the Thailand flooding, but perhaps the Seagate 3TB drives were impacted more than other models or other vendors. One thing is known, nearly every manufacturer reduced the warranty on their drives during the crisis with consumer drives like the Seagate model ST3000DM001 being reduced from 3 years to 1 year.

Conclusion

While this particular 3TB model had a painfully high rate of failure, subsequent Seagate models such as their 4TB drive, model: ST4000DM000, are performing well

with an annualized 2014 failure rate of just 2.6% as of December 31, 2014. These drives come with 3-year warranties and show no signs of hitting the wall.

Backblaze currently has over 12,000 of these Seagate 4TB drives deployed and we have just purchased 5,000 more for use in our Backblaze Vaults.

Bio | Latest Posts

Andy Klein

Andy has 20+ years experience in technology marketing. He has shared his expertise in computer security and data backup at the Federal Trade Commission, Rootstech, RSA and over 100 other events. His current passion is to get everyone to back up their data before it's too late.

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109 Comments Backblaze Login

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Join the discussion…

Michael Gardner • a year ago
Odd, not a bit of discussion (did I miss it?) as to HOW the drives failed. Excessive bad areas on the platter? Dead interface? Random data errors?
7 • Reply • Share ›

YevP Mod ➚ Michael Gardner • a year ago
@Michael Gardner we didn't chat about drive failure in this post because we talk about it ad nauseam in other posts. Take a look at: https://www.backblaze.com/blog... under the section: "What is a Drive Failure for Backblaze". That'll give you some more info!
1 • Reply • Share ›

Kyle ➚ YevP • a year ago
That post still didn't explain HOW the drives failed. That section of the article you linked just shows what criteria you use to determine a failed drive. You seem to be dodging the question. We want to know about how these drives in particular failed.
2 • Reply • Share ›

ThePinkGuy ➚ Kyle • 10 months ago
I guess we won't be getting an answer.
• Reply • Share ›

Sen Choi ➚ ThePinkGuy • 9 months ago
at least you will be getting smiles! :o :) :) :) :) :) :) :) :) :) :) :) :) :) :) :) :)
• Reply • Share ›

Wes ➚ Michael Gardner • 3 months ago
I lost 20 of these drives. Eventually almost all turned into clicks of death. Prior to that, they were booted from my RAID setups due to bad sectors - counts in the hundreds and thousands by the time I tested them. Some reported SMART errors before failing, but most did not.
• Reply • Share ›

Mundstrøm ➚ Michael Gardner • 6 months ago
They just stopped being accessible - my NAS would attempt to access the disks, I could hear them spin up then clickety-click, click, click spin down. Then the NAS would simply light up a red LED by the drive saying it had failed. I've tried connecting each failed disk to my Mac using en external dock. Some spin up, make noises and are never accesses by the drive controller at all. Some are simply "unreadable" and can't be accessed by the OS.

Some are readable but refuse to be formatted (initialisation failed), some can be accessed, but a bad sector scan using Tech Tool Pro or Drive Genius finds an excessive amount of bad blocks, too many to reallocate. All in all I'm thinking the failure is either for varied reasons, or the failure causes varying types of damage to the disk. All in all, screw it. They suck. Don't buy.

^ v • Reply • Share ›

Steve Rand ➚ Michael Gardner • 6 months ago

Good question. I just posted how mine failed if you are interested.

^ v • Reply • Share ›

Reaper • a year ago

I also had 6 of those Seagate 3TB drives in RAID5, 24/7 low load enviroment (backup server). All have failed by now. Warranty was 1 years and drives started failing when 1.5 years old. Good to know that Blackblaze confirms that I was not alone with this problem.

In my case drives started getting more and more reallocated sectors and got thrown out of RAID array all the time. Finally they were utterly unusable.

At the same time I have several 9 years old 320GB Seagate drives still working without any problem!

6 ^ v • Reply • Share ›

Matthew F ➚ Reaper • a year ago

you should not be running 3TB drives in raid 5, you are asking for data loss with the rebuild stress alone of a single drive dying.

1 ^ v • Reply • Share ›

Sentinel Jones ➚ Reaper • a year ago

Yup. I've had 3 of these 3TB drives fail in my MacPro (the older silver tower model) - the failure rate seemed high, but I also thought it could have been electrical/lightning/brownout type stuff on the first one. The others I got more suspicious. One drive failed a year and a couple of months after purchase - Seagate said it was out of warranty.

After reading this, I'm heading over to Amazon to get different replacements for the replacement 3TB drives I bought. Frustrating. I'm not typically a fan of lawsuits and I never pay attention to the stupid and unsolicited "settlement" things I get in the mail (they too often seem like a scam) but there might be a class action here.

1 ^ v • Reply • Share ›

Mathew ➚ Sentinel Jones • a year ago

I've had both Segate 3TB drives fail within six months of each other. Fortunately they were mirrored and I replaced the both failure with Western Digital.

^ v • Reply • Share ›

Faslane ➚ Mathew • a year ago

be careful if you bought the MyBook 3TB WD, I've lost two with 3 month of eachother so they were tossed regardless of warranty, I took the hit financially and just went with Toshiba Canivo 4Tb and it's been perfect, so its not just seagate!!!!

• Reply • Share ›

Dave Keller ➚ Faslane • 10 months ago

We had a 2TB model fail on my Son's machine he used it to backup his steam game library then unplugged it and it sat! he reconnected it to restore after he reformatted and it wouldn't power on. I removed the hard drive from the housing and connected it to sata and discovered although the drive worked fine the WD interface board encrypts the data so it was inaccessible!

1 • Reply • Share ›

Faslane ➚ Dave Keller • 10 months ago

I was able to use EaseUS Data Recovery program (there's a free trial to test if it'll see recoverable files before you buy, but does require purchase to recover. I think it's about 29.99 or 39.99 but worth every cent. It's saved me a couple times and got my files back but it took a couple days to do, lots of scanning and waiting of course. It seems the issues are more in the hardware controlling the drives than the drives themselves but in my case it was the drives but I've heard others have the same issue as you where the box fried but drive mounted fine in another. A good trick to try when all else fails is to stick the bare drive in the freezer for a half hour and plug into a external sata connection or one of those external slot Sata boxes where you just drop the bare drive into, usually it'll mount long enough to grab everything you can. It's worked for me a few times but not always. Ive never seen where it's encrypted data though, maybe corrupted it but tht's what the EaseUS data recovery app does it "decrypts" for lack of a better term and recovers the files. it nearly recovered everything I lost previously....I had about 1000 or so movies and tond of pics and docs, got 90% of it back intact and watchable/editable/viewable etc. BTW, I don't work for them or get kickbacks, it's just a great tool.

• Reply • Share ›

fhturner • a year ago

So, are these compromised drives still being produced/sold? The stats in this article show purchases from Nov 2011 to Dec 2012. Are ALL ST3000DM001 drives bad? Reason I ask is, Newegg has a sale on 3TB Seagate 7200.14 ST3000DM001 today, $75. Tempting, but not knowing if anything has been corrected between these models on sale today and those sold/built 2-3 years ago gives me serious pause.

Do we assume the entire run is suspect, including those on sale today, or have QC issues been addressed in the intervening 2+ years?

3 • Reply • Share ›

Tim Henning • a year ago

I have 5 of the 3TB drives in my Synology box I use at home. I had to replace every drive, one of them twice. Luckily for me, it was all under warranty, except for the last one. When they dropped for me, I had multiple failures. As the hot spare kicked in, another would fail before the rebuild would complete. This took my NAS box down twice and I had to restore everything. As I replace these drives going forward, I will not be using Seagate. They have a huge reliability issue with these 3TB drives and should do something about it, even if it's a trade in program. I would consider upgrading to a 4TB drive and pay the difference just to get off this platform. This would keep their customers on Seagate and hopefully give them a reliable drive that would change their Seagate opinion.

2 ^ v • Reply • Share ›

johnkristian • a year ago

I built a file server myself with 15 of these drives (+ i bought a couple of cold spare drives). The drives failed all the time. Some was sendt for replacement, some where tested OK, rebuilt on, failed again after a week or 7.
Ended up with replacing all of them with WD RE4 drives last summer. Much more expensive (especially since I had to pay for both the seagate drives and the WD drives), but haven't had a single failure since.
17 drives is not much compared to what u are doing, but it's more that most consumers buy. Short story ... the drives are rotten. :P

2 ^ v • Reply • Share ›

Mundstrøm • a year ago

Just lost the last of 5x3TB st3000dm001 drives purchased fro my NAS between 2012-2014. It's may 2015 and I've lost 5 drives in 3 years. I'm really, really REALLY disappointed by the lack of reliability. I'm NEVER buying Seagate again as a matter of principle. I have hard drives in old machines dating from 2003 that are still working, hell I have an 80GB in my old Amiga that's still working.

I was using them in RAID 5 configuration and I'm counting myself lucky 2 never failed simultaneously. Each time, running a bad sector scan revealed 200+ bad blocks. Only in one case was the drive usable after sector reallocation, and I'm only using it for backup since I expect it to fail again. In defence of how I've used them and what unit I was using them with, I have replaced all with WD Red drives since, and none of them have failed yet, so I'm certain this is a case of bad quality products from Seagate. Since LaCie is owned by Seagate I'm wondering how this is affecting customer satisfaction with an expensive well-designed brand like LaCie that is based on trust.

2 ^ v • Reply • Share ›

Flatlinebb • a year ago

Could you share what type of utilities or apps are used for hard drive testing? Are they publicly available, or something internal or proprietary?

2 ^ v • Reply • Share ›

Hugh Briss ➚ Flatlinebb • 6 months ago

Use a Linux live CD and a few simple commands. Any good disk should be able to successfully read all user-accessible sectors from start to finish, so typing something like 'cat /dev/sda > /dev/null' (with /dev/sda being replaced by the device name for the disk you're interested in) should take a few hours (one hour per terabyte, perhaps a bit more) to finish and complete silently; any reported errors would mean the end-to-end sequential read of the entire disk has failed and the disk is almost certainly bad. Motherboard and cable failures can also trigger a read failure, but these are very rare compared to disk failures.

Using 'smartctl -a /dev/sda' to dump the SMART data from the drive can be interesting as well; look at raw numbers for Reallocated_Sector_Ct and Reported_Uncorrect and if they're above 0 but below an absurdly high number like 65536 then you have sectors on the disk that have failed (RSCs indicate the drive relocated failing but still readable sectors to reserved good sectors, while uncorrectable errors mean there was previous data loss that the on-platter ECC wasn't able to correct.) Likewise, look at Load_Cycle_Count and if it's over 600,000 then your drive is absolutely guaranteed to be living on borrowed time (the highest LCC I've seen in active use was a laptop drive at about 740,000 cycles; I recommended an immediate replacement.) Extremely high LCCs over the course of one year due to aggressive head unloading were the prime cause of WD Green ("EADS" variety) hard drive failures, particularly in Linux systems operating 24/7.

While these are not necessarily the methods used by Backblaze, they are extremely effective ways to detect drive failures and make educated guesses about remaining drive longevity.

1 ^ | v • Reply • Share ›

Mathew Binkley ➚ Flatlinebb • a year ago

There may be some super-secret proprietary utility, but you can probably get 99% of the utility by looking at the SMART attributes for the drive. If the drive is failing or trending towards failure, it's usually pretty easy to catch.

I wrote a BASH script to scan drives for failing/marginal attributes. You can find a list of SMART utilities for your OS here:

http://en.wikipedia.org/wiki/C...

1 ^ | v • Reply • Share ›

alex kent ➚ Mathew Binkley • a year ago

if you want to do a (much) more thorough test of a drive you can use Spinrite. It is a super powerful utility for write, read, repeat testing of the entire surface of a disk.
https://www.grc.com/sr/spinrit...

1 ^ | v • Reply • Share ›

Ian Worthington ➚ alex kent • a year ago

Sorry, but spinrite is a just a promotional vehicle for Gibson. If you read how it purports to work it makes no sense at all. Don't touch it with a bargepole.

^ | v • Reply • Share ›

YevP Mod ➚ Flatlinebb • a year ago

Hey! We can't talk about some of the methods used, but secure erase is part of the process. Sorry we can't divulge some of that info!

1 ^ | v • Reply • Share ›

Drashna • a year ago

The CSI header is appropriate.
Your data shares as much factual data, as the average episode of CSI. None.

WIthout tracking the drives, seeing where each drive was sourced, and where they were used at, what controllers were in use, where they were purchased from and the failure time.
Without ALL of this information... your data is useless and heavily misleading.

4 ^ | v • Reply • Share ›

Milk Manson ➚ Drashna • a year ago

I have a dozen brand new in the box Seagate ST3000DM001's. Would you like to buy them?

Exactly.

2 ^ | v • Reply • Share ›

Vince ➚ Milk Manson • a year ago

Yes, I'll buy them, providing they're less than £20 ($15) a unit. That way the expected lifetime vs cost works for us.
Deal?

^ | v • Reply • Share ›

Milk Manson ➚ Vince • a year ago

But I have Hitachi's for the same price...

^ | v • Reply • Share ›

Drashna ➚ Milk Manson • a year ago

Depends on how much you're selling them for.
And if they are desktop drives, or shelled externals.

^ | v • Reply • Share ›

SD Guero ➚ Drashna • a year ago

Seriously. I read through this waiting for the useful infoormation to emerge. It didn't.

I'm surprised Seagate is even OK with this getting published as it rpovides no insight into the problem other than "3TB Seagate drives really sucked for a while."

^ | v • Reply • Share ›

Kyle Benzo ➚ SD Guero • a year ago

Seagate's opinion on the matter is irrelevant. He doesn't need their approval nor should he ask for it.

3 ^ | v • Reply • Share ›

Christopher McCord ➚ SD Guero • a year ago

Especially since they are using a Desktop built HDD in a POD and RAID application, they were not built for this kind of use. That was never mentioned. Had they used an enterprise class drive or even a NAS type drive result might have been a lot better. They are trying to keep their costs down with these cheaper price point drives but sometimes that doesn't work out.

^ | v • Reply • Share ›

Milk Manson ➚ Christopher McCord • a year ago

I missed where they say the Seagate's were used differently than the other brands. Could you kindly point that out for me?

5 ^ | v • Reply • Share ›

T War ➚ Milk Manson • 5 months ago

No all drives where used out of spec

^ | v • Reply • Share ›

Milk Manson ➚ T War • 5 months ago

so it was fair in other words.

^ | v • Reply • Share ›

Drashna ➚ SD Guero • a year ago

In previous posts, I've commented about that as well. I'd sue or get them to remove the posts, if I was Seagate.

^ | v • Reply • Share ›

Sentinel Jones ➚ Drashna • a year ago

I realize the futility of trying to educate a troll, but for anyone else who somehow think's he has a point:

You really don't understand basic 1st amendment protections, do you? Just because a news/blog/story about your product is negative or you disagree with it doesn't mean you can sue someone to retract or remove it. I can write "seagate drives suck" a bajillion times and there is nothing Seagate can do about it. Nothing. BB wrote a well-reasoned post, replete with data and process explanations. If Seagate doesn't like this post, they can post a rebuttal if they choose and explain why BB's conclusions are wrong. That's it. No threats, no lawsuits, no taking anything down.

To illustrate the contrast of an actionable claim: If I write that the Seagate CEO is involved in human trafficking while knowing such a claim is false - that's libel, which is very different. I can be held accountable in a civil court. If I go on TV and say that 50 Seagate drives have had catastrophic failures sending shrapnel into school children and killing them - while knowing this is false, that's slander. In both cases, Seagate would have to also show how my actions resulted in monetary damage to them.

"30 drives failed in June, 40 failed in July ... we're seeing a pattern" is not something you can sue over.

6 ^ v • Reply • Share ›

silvestris ➚ Drashna • a year ago

You can't sue over the truth or over opinions.

1 ^ v • Reply • Share ›

Kyle Benzo ➚ Drashna • a year ago

Get them to remove the posts how? Sue them for what? Truth is a solid defense to libel/slander in the USA. Potentially not so much in some European countries. Just because they didn't display all of the data you wanted to see doesn't make it illegal...

^ v • Reply • Share ›

YevP Mod ➚ Kyle Benzo • a year ago

We actually have a good relationship with Seagate! We continue to buy their drives in droves. All we're doing is showing how they and other drives fare in our environment. The reason for this specific post was that people noticed a large drop-off of this drive in our previous posts and were curious as to what happened.

1 ^ v • Reply • Share ›

Kyle Benzo ➚ YevP • a year ago

Yes I assumed you did but even if you didn't they would have no legal standing to get this article removed. On a side note, release a linux client so I can leave Crashplan! Thanks!

1 ^ v • Reply • Share ›

YevP Mod ➚ Kyle Benzo • a year ago

Heh, I'll talk to the engineers for you Kyle :-p

1 ^ v • Reply • Share ›

Jesper Monsted ➚ YevP • a year ago

If you're putting work into a linux client, please make it portable to the rest of the Unix platforms too. Shouldn't take much to include the rest of us (and i do believe there's a lot of freebsd/freenas users around, especially with ZFS on the scene). Heck, you'd probably have to go out of your way to make it linux only.

^ v • Reply • Share ›

Austin Bailey • 6 months ago

Looks like things have gotten ugly with with Seagate.

Seagate slapped with a class action lawsuit over hard drive failure rates
http://www.pcworld.com/article...
1 • Reply • Share ›

Steve Rand • 6 months ago
Just came across this article by chance. Of the 8 disks I have at home doing various things in one server, the one disk that has died over 6 years is exactly this Seagate model. It would spin up, tick and R2D2 then spin down. I tried all the usual tricks but eventually gave up on it.
I took mine apart and the fluid-filled bearings had leaked or exploded all over the platters and heads etc. The platters were completely covered in a translucent grey tacky substance which I believe is dried up fluid.
Would be interesting to see what the other disks looked like.
1 • Reply • Share ›

Faux Grey • 7 months ago
Wish I had saw this article sooner. Recently lost quite a bit of (albeit unimportant) data on my array built from Seagate ST3000DM001. Hoping for better luck after replacing it with Toshiba disks. Going to keep far away from Seagate for the time being.
1 • Reply • Share ›

Hugh Briss ➚ Faux Grey • 6 months ago
I own 7x Toshiba 3TB 7200RPM disks, some of which are in a 24/7 RAID-5 array. Only one failed and that happened within a couple of days after unboxing; the replacement and the other 6 drives show no signs of failure or ever stopping. Good choice!
1 • Reply • Share ›

Milk Manson ➚ Hugh Briss • 5 months ago
Are those internals or shucked?
• Reply • Share ›

Hugh Briss ➚ Milk Manson • 5 months ago
They're retail-bought internal drives. I don't shuck. I want to know what drive I am getting to make sure I get 7200 RPM rotation. Many external drives are slower because of lower rotation speeds.
1 • Reply • Share ›

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FollowTheORI — Thank you Guys again for the good work and informing the public! This is irreplacable now... Keep up! :)